

**Appl. No.** : **10/761,895**  
**Filed** : **January 20, 2004**

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Canceled) .

2. (Currently Amended) A pump system, comprising:

a pump tube, connected to a pumped-to system, wherein said pump tube has a different characteristic of elasticity then said pumped-to system;

an actuating part, ~~changing-actuated to change an internal cross section of said pump tube to form a changed cross section area of the pump tube,~~ without extending into an inner surface of said pump tube;

a controller, which controls at least one of frequency, phase, and amplitude of the changing of the pump tube, and which controls said at least one of frequency, phase and amplitude such that the actuation to change said cross section of the pump tube is removed before pressure between said tube and said pumped to system is equalized; and

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a feedback system, which provides feedback to said controller indicative of a pumping caused by said actuating.

3. (Currently Amended) A ~~system~~ system as in claim 2, further comprising a sensor, which senses an amount of pumping carried out by the pump tube.

4. (Previously Presented) A system as in claim 2, wherein said actuating part is electrically controllable.

5. (Withdrawn) A system as in claim 2, wherein said actuating part completely surrounds said pump tube.

6. (Previously Presented) A system as in claim 2, wherein said actuating part surrounds only a portion of said pump tube.

7. (Previously Presented) A system as in claim 2, wherein said actuating part does not ever completely close said pump tube.

8. (Currently Amended) A pumping system, comprising:  
a pumping portion, having a first outer surface, and an inner cross-sectional area which is deformable, said pumping portion

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adapted to be connected to a system through which fluid is to be pumped; and

an actuating part, which changes an inner cross-sectional area of said pumping portion to cause a flow of fluid, wherein said actuating part never completely closes off said inner cross-sectional area, said actuating part including a controller which controls at least one characteristic of the actuating, said one characteristic being at least one of frequency, phase and amplitude, and a feedback system, that feeds back information indicative of the pumping effect to said controller, and said controller and feedback system controlling said at least one of frequency, phase and amplitude such that the changed cross section of the pump tube is removed before pressure between said tube and said pumped to system is equalized.

9. (cancelled).

10. (Currently Amended) A system as in claim ~~9~~8, wherein said feedback system includes a sensor which senses information about pumping effect.

11. (Withdrawn) A system as in claim 8, wherein said actuating part completely surrounds said pumping portion.

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12. (Previously Presented) A system as in claim 8, wherein said actuating part only partially surrounds said pumping portion.

13. (Previously Presented) A system as in claim 8, wherein said pumping portion is a section of tube.

14. (Withdrawn) A method, comprising: changing an internal cross section of the tube portion in a way that causes a pumping fluid within said tube portion; monitoring a pumping effect caused by said changing; and controlling a characteristic of said changing to cause a desired characteristic of pumping.

15. (Withdrawn) A method as in claim 14, wherein said changing an internal cross section comprises pinching an outer surface of the tube, without completely constricting the tube.

16. (Withdrawn) A method as in claim 14, wherein said changing the internal cross section comprises constricting an entire outer surface of the two, completely around the tube.

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17. (Withdrawn) A method as in claim 14, wherein said changing the internal cross section comprises constricting only a portion of the outer surface of the tube.